St. Bartholomew's Hospital

"Æquam memento rebus in arduis
Servare mentem."
—*Horace*, Book ii, Ode iii.

Journal.

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CALENDAR.

Fri., June 2,—Medicine: Clinical Lecture by Dr. Hinds Howell. Dr. Graham and Mr. Vick on duty.

Sat., ,, 3.—Cricket match *v.* St. George's Hospital. Home.

Sun., ,, 4.—Whit-Sunday.

Mon., ,, 5.—**Bank Holiday.**

Tues., ,, 6.—Prof. Fraser and Prof. Gask on duty.

Wed., ,, 7.—Surgery: Clinical Lecture by Sir C. Gordon-Watson.

Fri., ,, 9.—Medicine: Clinical Lecture by Dr. Gow. Lord Horder and Sir C. Gordon-Watson on duty.

Sat., ,, 10.—Cricket match, Past *v.* Present. Home.

Mon., ,, 12.—Special Subjects: Clinical Lecture by Mr. Elmslie.

Tues., ,, 13.—Dr. Hinds Howell and Mr. Harold Wilson on duty.

Wed., ,, 14.—Surgery: Clinical Lecture by Mr. Harold Wilson. Cricket match *v.* Guy's Hospital. Home.

Thurs., ,, 15.—**Abernethian Society: Summer Sessional Address by Prof. Burgess on "Stonecutters and Stonecrushers".**

Fri., ,, 16.—Medicine: Clinical Lecture by Dr. Gow. Dr. Gow and Mr. Girling Ball on duty.

Sat., ,, 17.—Cricket match *v.* Hampstead. Home.

Mon., ,, 19.—Special Subjects: Clinical Lecture by Mr. Bedford Russell.

Last day for receiving matter for the July issue of the Journal.

Tues., ,, 20.—Dr. Graham and Mr. Vick on duty.

Wed., ,, 21.—Surgery: Clinical Lecture by Mr. Vick. Cricket match *v.* Times Club. Away.

Fri., ,, 23.—Medicine: Clinical Lecture by Dr. Graham. Prof. Fraser and Prof. Gask on duty.

Sat., ,, 24.—Cricket match *v.* R.N.C. Away.

Mon., ,, 26.—Special Subjects: Clinical Lecture by Mr. Higgs.

Tues., ,, 27.—Lord Horder and Sir C. Gordon-Watson on duty.

Thurs., ,, 29.—**Abernethian Society: Cinematographic Demonstration by Dr. Canti on "Tissue Culture".**

EDITORIAL.

WE are happy to be able to announce this month news of vital interest to all our readers.

The Dean writes:

29th May, 1933.

Dear Mr. Editor,

The great day has arrived. The Medical College of St. Bartholomew's Hospital has bought the site of the old Merchant Taylors' School, and the future development of the College is assured. That is, indeed, an achievement of which we of this generation may be justly proud, and for which later generations will be grateful to us.

There can be no doubt that, when we have carried through the whole of our scheme, the site, buildings and equipment of our College will be the finest in this country, if not in the world.

Now that the purchase has been effected, let me record once more the pleasure I derive from the fact that a very large part of the money which has enabled us to effect it has been provided by Bart.'s men. I thank them again.

We are about to issue an appeal to the public, and I feel sure that, when they realize what Bart.'s men have done for themselves, they will come to our aid and help us to meet the rather heavy liability which we have incurred. We have to collect, and quickly, the sum of £65,000. Is that impossible? It was said by some a year ago that the whole scheme was beyond our capacity, and that we should never acquire the site. Few things in this world are impossible if only we have the will. It is now up to us to use every endeavour to get this money. I have running through my head the plain fact that only 13,000 £5 notes are required, and my past experience suggests to me that therein lies a hint of our best way to tackle it. Small sums are

MEDICAL FACULTY. McGILL

given much more readily than large. I cannot, personally, understand why Bart.'s men find it difficult to collect money from their friends, for during the past year I have myself collected something like £1000 in small sums. I would again urge each one of you to make himself responsible for collecting five "fivers", so that our new "Fiver Scheme" may bear fruit.

Another point: I am told that many Bart.'s men believe that the main objective of our scheme is a Residential College. That is very far from true. Our chief purpose, as has been clearly stated in our previous communications, is the housing of the Pre-Clinical Departments. It is true that we wish eventually to have a Residential College, but its provision will be the last, rather than the first, of our tasks. No part of the money for which we are now appealing will be expended on the building of a Residential College.

Once again I thank the Students for the great assistance thay have given and are giving. The sum they have raised is approaching £500—a noble effort indeed. Also, I must not fail to express our gratitude to the Women's Guild, for by their recent Jumble Sale and Fair they raised for us no less than £600. The whole fraternity of Bart.'s has one object in view. Let it not be said that, having got so far, we have lost our energy. Join the Bart.'s "Fiver Scheme" and do your best!

Having embarked on the next stage of our appeal for funds, we have now to consider how best the buildings on the Charterhouse Square site can be altered to meet our needs. Until recently it was thought that we should have to build a new Anatomical School as well as a Residential College. But it is now considered that, of the buildings already on the site, one will take Physics, another Chemistry, and a third Anatomy and Biology. A fourth has room for the Physiology and Pharmacology Departments, a Dining Hall, Cloak Rooms, a Students' Common Room and a Common Room for old Bart.'s Men. The whole of the alterations to these buildings will cost about £30,000. This is less by at least £10,000 than the figure which we previously had in mind, viz. £25,000–£35,000 for a new Anatomical Department and £15,000–£20,000 for alterations.

When the necessary arrangements have been made with the Students' Union, the College proposes to hand over to them the playing-field, the rifle range, the gymnasium, the two fives courts and the two racquet courts. We hope to be able to do this very soon, but it must await a suitable arrangement with the Students' Union. The building alterations we also hope to begin soon, but the progress of these must depend very largely on the rate at which funds come in, and on the financial arrangements we may be able to make. In this direction those Old Bart.'s men who have not yet subscribed can give us valuable and timely help. The number of Bart.'s men on the subscribers' list is still not more than a third of the total of our old students. What can I say that may persuade the others to lend us a hand? Will they not send something, however small?

Yours sincerely,

W. GIRLING BALL,

Dean of the Medical College.

* * *

COLLEGE APPEAL FUND.

	£	s.	d.		†
Staff	11,984	15	9	(68)	
Demonstrators	1,504	1	0	(65)	
Students	436	17	3	(248)	
Old Bart.'s men:					
Bedfordshire	5	10	6	(2)	(26)
Berkshire	86	1	0	(13)	(37)
Buckinghamshire	64	14	0	(8)	(29)
Cambridgeshire	149	13	0	(10)	(42)
Cheshire	1	1	0	(1)	(26)
Cornwall	22	2	0	(5)	(36)
Cumberland	5	0	0	(1)	(6)
Derbyshire	19	14	0	(4)	(17)
Devonshire	419	18	0	(39)	(117)
Dorset	16	8	0	(8)	(30)
Durham	16	6	0	(3)	(11)
Essex	225	15	6	(15)	(69)
Gloucestershire	108	13	0	(6)	(66)
Hampshire	388	19	0	(35)	(134)
Herefordshire	12	7	0	(3)	(11)
Hertfordshire	57	10	0	(9)	(73)
Huntingdonshire					(1)
Isle of Wight	135	8	0	(9)	(25)
Kent	518	5	0	(57)	(146)
Lancashire	33	7	0	(10)	(82)
Leicestershire	133	12	0	(6)	(28)
Lincolnshire	42	3	0	(12)	(25)
Middlesex	371	13	0	(15)	(68)
Norfolk	149	7	6	(17)	(60)
Northamptonshire	54	4	0	(4)	(17)
Northumberland	101	1	0	(2)	(11)
Nottinghamshire	13	13	0	(2)	(28)
Oxfordshire	166	10	0	(14)	(29)
Rutland					(2)
Shropshire	25	4	0	(6)	(22)
Somersetshire	449	6	0	(22)	(43)
Staffordshire	63	13	0	(5)	(37)
Suffolk	262	1	0	(15)	(46)
Surrey	398	10	0	(37)	(180)
Sussex	227	8	0	(38)	(170)
Warwickshire	176	18	0	(16)	(56)
Westmorland	1	0	0	(1)	(5)
Wiltshire	92	11	0	(10)	(26)
Worcestershire	142	8	6	(17)	(27)
Yorkshire	254	19	6	(19)	(101)
Wales	32	11	0	(8)	(150)
London	2,410	10	8	(139)	(971)
Channel Islands	10	0	0	(1)	(9)
Scotland	12	2	0	(3)	
Abroad	38	5	0	(7)	
South Africa	239	3	6	(9)	
Canada	87	2	0	(5)	
East Africa	54	4	0	(3)	
West Africa	140	5	0	(4)	
India	102	0	0	(2)	
Syria	2	2	0	(1)	
U.S.A.	5	0	0	(1)	
Ireland	14	14	0	(3)	
North Africa	1	0	0	(1)	
Carried forward	£22,488	7	8		

	£	s.	d.	
Brought forward . . .	22,488	7	8	
Malay States	6	0	0	(2)
China	33	0	4	(5)
France	50	0	0	(1)
Trinidad	20	0	0	(1)
British West Indies . . .	23	1	0	(3)
Services	478	2	0	(23)
*Others	16,842	6	10	(115)
	£39,940	17	10	

*These figures include:	£	s.	d.
University of London	5000	0	0
Unilever Bros.	500	0	0
League of St. Bartholomew's Nurses . . .	25	0	0
The Executors of the late Alfred de Rothschild, Esq.	2000	0	0
Rahere Lodge	105	0	0
Corporation of the City	1000	0	0
Fishmongers' Company	262	10	0
Mercers' Company	1000	0	0
Ironmongers' Company	100	0	0
St. Bartholomew's Hospital Reports . . .	250	0	0
The Haberdashers' Company	50	0	0
The Goldsmiths' Company	500	0	0

† Number of Bart.'s men in County.

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The custom of inviting distinguished surgeons from both provincial and American medical schools to this Hospital during the summer months seems to have become established, and the Surgical Professorial Unit have been extremely wise in securing Prof. Burgess, of Manchester, for a brief period during the present month. In extending our hearty welcome to him we hope that he will enjoy his visit as much as we have enjoyed those of his predecessors, Prof. Cabot, Lord Moynihan, Prof. Grey Turner and Prof. Wilkie.

Those who do not have the chance of meeting Prof. Burgess in the ward or theatre will be able to hear him lecture to the **Abernethian Society on Thursday, June 15th, at 8.30 p.m.,** when he will deliver the **Summer Sessional Address on "Stonecutters and Stonecrushers".**

* * *

At the Annual Representative Meeting of the British Medical Association to be held in Dublin, beginning on July 21st, the following St. Bartholomew's men, amongst others, hold office or will be taking part:

Medicine.—Discussion: Sir Humphry Rolleston.

Surgery.—Discussion: W. M. Levitt, M.B., M.R.C.P.

Radiology.—President: G. Harrison Orton, M.D., D.M.R.E. Hon. Secretary: L. V. Sparks, M.R.C.S., D.M.R.E. Discussion: W. M. Levitt, M.B., M.R.C.P.

Neurology and Psychological Medicine.—Vice-President: J. G. Porter Phillips, M.D., F.R.C.P. Discussion: J. G. Porter Phillips, M.D., F.R.C.P.

Orthopædics.—Hon. Secretary: H. J. Seddon, M.B., F.R.C.S. Discussion: R. C. Elmslie, O.B.E., M.S., F.R.C.S.

History of Medicine.—Vice-President: K. R. Hay, O.B.E., M.B. Hon. Secretary: A. W. Franklin, M.B., M.R.C.P.

Medical Sociology.—Vice-President: Harry Campbell, M.D., F.R.C.P.

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THE EIGHTH DECENNIAL CLUB.

We would remind readers that the Annual Dinner will be held on June 28th as announced in the April issue.

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THE NINTH DECENNIAL CLUB.

The Dinner of the Ninth Decennial Contemporary Club will take place at the Langham Hotel on Wednesday, July 5th, at 7.30 p.m. The Secretaries for this Club are: R. C. Elmslie, C. M. Hinds Howell.

* * *

Congratulations to Prof. I. de Burgh Daly on being appointed to the Chair of Physiology in the University of Edinburgh and to Prof. Hadfield who has accepted an invitation to fill the Chair of Pathology in the University of Bristol.

* * *

THE UNITED HOSPITALS AND UNIVERSITY OF LONDON MOTOR CLUB.

This Club has recently been formed under the presidency of Dr. Benjafield. Its object is the furtherance of all forms of motor sport which do not entail damage to either car or driver, and is open to all members of the London Hospitals and University. Those interested in the club should apply to Dr. A. H. Robb-Smith, who is the representative of the club at this Hospital.

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STOP PRESS. BIRTHDAY HONOURS.

Our heartiest congratulations to Sir Thomas Dunhill.

EX APPEAL.

(*Pour encourager les autres.*)

Much have I laboured since I left the fold
And many comely circulars have seen
Cajoling alms from out that living lean
We doctors earn in copper, silver, gold.

Oft of that eloquence had I been told
Whereby Lord K* coaxed cash from Aberdeen,
Yet did I never lap the Hippocrene
Till I heard Girling bawl out loud and bold.

Then felt I like some Bradman at the crease
When a dread Larwood swims into his ken,
Or like stout conies when, in heart's surcease,
They stare upon a stoat. . . . I took my pen,
Ducked low (like Don), my duty did (like Reece†),
And wrote a cheque for fifty there and then.

T. PANDY.

* Of the "London". † Of the "Mantelpiece".

§

AIMS AND METHODS OF MEDICAL EDUCATION.

I. AIMS

ACTS of Parliament are commonly introduced by a preamble which explains their purpose—what evils they are intended to correct, what good end they are designed to further.

To the medical curriculum there is no preamble, and this, at least from the critic's point of view, is a pity, since, if he attack it for failing to achieve its aim, its defenders can reply that the said aim is, in fact, far other than he supposes. Actually its defenders, if any, do not do this, for, curiously enough, though medical education and the medical curriculum have lately been subjected to much critical discussion (sufficient to show that something must be radically wrong), the fundamental question of its aim and purpose is scarcely, if at all, debated. Yet, after all, may not this radical something be the most radical thing possible, namely, that the present curriculum has no clearly envisaged or well-defined aim at all, but has "come to be", and is now regarded as an established institution which may be ornamented and added to or even reverently amended, but which it would be sacrilege to take to pieces and re-build?

If anyone doubt that this is so, let him try to devise an explanatory preface to the existing curriculum, briefly indicating its purpose and *raison d'être* such as would carry conviction to an intelligent layman.

Such a preamble might begin thus: "Whereas it has been decreed that those who desire to practise medicine with the privilege of signing death certificates and prescribing certain drugs shall first be subjected to tests; Now WE, having diligently considered the matter, have devised certain tests, easy of application, to discriminate between man and man, and a course of instruction leading thereto hereinafter to be known as 'The Curriculum'".

Or thus: "Whereas the art of medicine, having its inception in magic and witchcraft and until lately not wholly divorced from empiricism and faith-healing, now rests secure upon the sure foundation of the physical sciences, and whereas the first care of the practitioner should be always to comprehend the mechanisms alike of diseases and remedies and without such comprehension to do nothing; Now WE do deem it expedient that the intending practitioner shall, for the space of five or six years, occupy himself with the study of the sciences and mechanisms aforesaid to the end that, being well primed with knowledge and well assured of the paramount importance of these subjects, he may be fitted to become, in due time, a scientific practitioner worthy of an enlightened age. Moreover, that he be not idle, he shall frequently submit himself to the wholesome discipline of examinations whereby, etc., etc.".

Or (lastly), thus: "Whereas it is expedient that there should be at the service of the people a body of humane, intelligent and thoughtful men, so trained and instructed as to be able both to give advice in matters of health and to minister to the afflicted, whether by counsel, medicines or surgical intervention; Now WE, having long and earnestly considered, etc., do propound the course of study and scheme of examinations hereto subjoined in confidence that, being wisely administered and diligently pursued, it will achieve its high purpose, and minister alike to the honour of the profession and to the good of the public".

Shedding the fancy dresses, the first preamble describes the curriculum as a scheme for producing qualified as opposed to unqualified practitioners, the second as a course of instruction in medical and ancillary sciences, and the third as a plan for making good doctors.

That the first of these adequately described either the curriculum or its purpose we should doubtless blush to admit, yet it is hard to avoid the conclusion that a great part of what is so laboriously learned and taught has little purpose but to facilitate the task of the examiner. The examiner is required to separate, not sheep from goats, but sheep from sheep (or, perhaps, goats from goats), and he deserves our sympathy; but it is, to say the least, unfortunate that generation after generation of examiners have chosen the written memory test as their principal instrument of discrimination, so that the methods of examination are now governed by an extremely powerful convention almost impossible to break, and both examiners and examinees would be profoundly shocked if reasoning power, manual dexterity or evidence of original thought were allowed as great or greater weight in examinations as retention of knowledge.

The apotheosis of the memory test is, of course, the examination known as "The Primary". This examination, if it were questioned as to its purpose, would probably reply that it was engaged in assuring that candidates for the higher walks of surgery had a good knowledge of anatomy and physiology; but since it is notorious that the minutiæ of anatomy and of laboratory physiology studied for it are not only quickly forgotten, but would be of no great assistance to the surgeon if he remembered them, this avowal would clearly be what the psychologists call "a rationalization". Deeper analysis would undoubtedly reveal that the examination, being required, like Gideon of old, to eliminate

the great majority of the candidates, had fallen into the habit of subjecting them to a competition in reeling off memorized facts against time in circumstances conducive to stage fright, and had chosen the minutiæ aforesaid as the material for the competition. What other explanation can be offered of this extraordinary device which must infallibly eliminate a student lacking the faculty of rapid evacuation of the memory, no matter how well endowed with intelligence, imagination, dexterity and power of observation? Not even knowledge can save him. It is depressing to contemplate, even for a moment, the tale of man-years (and young man-years at that) wasted in endeavours to prepare for this ordeal by memory.*

True, "The Primary" has no place in the ordinary curriculum, but it may fairly be used to illustrate one of the chief troubles in medical education. The insistence on written examinations at every stage and the convention by which (especially, but not solely, in the pre-clinical phase) they deal almost exclusively with the recitation of things learned by rote, heaps on both student and teacher burdens grievous to bear. The student's mind is confused by the mass of detail, his memory is worn out, his other faculties languish from neglect. In passing, it may be noted that the same evil has invaded the nursing curriculum, with results widely deplored. It is hard to see how any reform worthy of the name is possible unless the methods of examination are radically changed and the importance of examinations materially diminished. The aim of the curriculum is emphatically not to produce successful medical examinees, or even "duly qualified medical practitioners".

So far the argument may well carry conviction, at least to students, and it is even possible that if the matter were debated in high quarters, "a large measure of agreement in principle" might be obtained; but the questions raised by preambles 2 and 3 are very much harder to dispose of.

What is the place of science in medical education and, for that matter, in medical practice? Could the personified curriculum protest that it had no responsibility for the kind of doctor it produced? "I have taught him what he needs to know of Medicine and its ancillary sciences; what he makes of it is not my affair". Or, if its purpose is to train men to become good doctors, can the means now in use be justified?

That medicine, not less than surgery, is, and must always remain an art, not a science, seems to the writer an axiom not susceptible to argument or requiring proof. If painting, sculpture or, to come nearer home, gardening are sciences, or, through increase of knowledge, could become sciences, then, but not otherwise, is medicine a science or a larval science. Science is concerned with the pursuit of truth, a particular science with the pursuit of a particular aspect or province of truth, and the pursuit must be single-hearted, fearless, regardless of consequences, applications or mis-applications, and strictly limited in aim and scope. Medicine is concerned with the prevention, diagnosis and treatment of disease, with the alleviation of suffering, with health, personal and public, and the unit with which it deals is an individual human being—a unit too big and too complex for any physical science.

Between scientist and physician there is a great gulf fixed. They may regard each other from its margins with admiration and interest, they may interchange ideas and information; they cannot cross it without losing their identity.

More than this. Medicine, though it is moving slowly from pure empiricism, is still, and must long remain, largely empirical. Of the ætiology and pathology of many of the commonest diseases, of the *modus operandi* of many most useful drugs and therapeutic measures our ignorance is complete, and the whole sum of our knowledge of vital processes, whether physiological or pathological, is a mere scratch on the surface of the ultimate truth. Even in terms of our physical sciences, we can completely explain no vital process, and of the nature of the mind (with which we daily have to do), and by what means it is related to brain and body, we know nothing at all. We have specific remedies for few diseases, and those not the commonest, and these same remedies are frequently empirical, theories of their mode of action following tardily on the established fact that they work.

Our surgery, though brilliant in its technique, and, within its limits, effective enough, depends to a very limited extent on any biological or physical science.

All this is not to say that we are clinically impotent. We are not. But we are not scientists and, further, the art we practise is, to a great extent, independent of the related sciences. No one would wish to underrate the debt of medicine in recent times to laboratory research, but clinical medicine existed long before the laboratory, and probably its greatest advances were made when, following Sydenham, it broke loose from the tradition of acting upon supposed scientific principles, and progressed by unbiased clinical observation. No doubt the science from which it then broke loose was false science, but would it not be quite possible to maintain the thesis that medicine has been led seriously astray by bowing down to bacteriology and histology

* The writer need hardly say that he twice attempted this examination and was handsomely ploughed, especially in physiology, also that he does not delude himself with the belief that the College lost thereby a promising surgeon.

in the last generation, and to endocrinology and biochemistry in this?

Corvisart, who, we are told, had the distinction of being for many years the trusted medical adviser of Napoleon, remarked that "the doctor ought to be on his guard against the itch to explain everything. He ought to know that Nature, hidden in most of her works, is especially so in diseases". Surely this is as true as ever it was. It is right that the doctor should endeavour to puzzle out the meanings and causes of what he observes, he should think while he works, but he should know that for the most part he cannot explain, and he should not be ashamed to confess it.

Our clinical teachers know this well enough. Exhortations to rely on clinical observation, not on laboratory findings, to study the patient rather than the disease, not to despise the work of the great clinicians of the past, are constantly on their lips, and it is not the fashion to decry Hippocrates; but there is no hint of this sentiment in the curriculum. More and more the sciences are exalted, and it seems to be implied not only that everything can be (or very soon will be) explained, but that an industrious student ought himself to be able to explain everything by the time he goes up for his finals. Time and again theories, already exploded or known to be untenable, are thrust upon the student's notice, instead of the far more significant and stimulating fact that "Nobody knows". "What is the cause of . . . ?", says the examiner. "No one knows, sir", replies the truthful and well-informed student. "No, no; no doubt", says the examiner, "but what theories are advanced?"

It is mechanisms, mechanisms all the way. Mechanisms and assorted facts relating to not less than twelve -ologies (readily increased to sixteen by a little subdivision), each one a vast subject probably boasting a professor. Moreover, these facts and mechanisms are learnt rather than studied, and are not seldom accepted on what proves an inadequate basis of fact.

The preponderance of time and mental energy devoted to the sciences extends well into the clinical phase (which is already relatively short), and morbid histology, bacteriology, parasitology, chemico-pathology, pharmacology and the rest jostle one another in their efforts to crowd out the study of living patients and the acquisition of skill in the arts of diagnosis, prognosis and treatment. What is the probable result of all this? Is not the mental attitude induced likely to be that of a credulous materialist, ready to accept any mechanistic explanation of what he does not understand, and to pass it on to others, disinclined to think and ashamed to confess to an honest, reverent and scientific agnosticism? And, further, since the art of medicine is only very partially dependent on these ancillary sciences, is it not inevitable that the student will fail to bridge the unbridgeable gulf, and will either despise and neglect the clinical arts which he has been taught to think "unscientific", or, adopting them, will turn once for all from the sciences with a "Good-bye to all that", since they have boasted so much and, as he sees it, let him down so badly?

Is it too much to say that preamble No. 2 describes the curriculum as it exists well enough, but rests on false premises, and is largely incompatible with preamble No. 3?

But perhaps it is not meant to be compatible; perhaps, in sober earnest, the curriculum is not intended to be a training for those intending to practise medicine, but only an exposition of the medical and related sciences, regardless of any application the student may secretly be intending to make of what he learns. As to this, it must be said that the vast majority of medical students are in fact intending to practise, and that if a man wishes to practise medicine within the profession he has no alternative but to take the curriculum. If it be said that the curriculum is but a preliminary exercise, it may still be urged that it should fit a man for what follows, and that for a mere preliminary it is rather long. Again, if it is not a training for practice, why does it include the actual giving of anæsthetics and attendance on women in childbirth? The position cannot be seriously maintained. The curriculum must have as its fundamental aim the training of men to become practitioners. No one expects it to do the Cadmus trick and send up practitioners fully armed, experienced and perfect in their art, but it may fairly be asked that the end should be kept consistently in view from the beginning, and that the scheme of study should contain as many as possible of such things as are likely to make a good doctor, and nothing that is likely to make a bad one.

L. W. BATTEN.

ACKNOWLEDGMENTS.

The British Journal of Nursing—The Nursing Times—Charing Cross Hospital Gazette—Guy's Hospital Gazette—Magazine of the London Royal Free Hospital—Middlesex Hospital Journal—Queen's Medical Magazine—Royal Dental Hospital Magazine—St. Mary's Hospital Gazette—St. Thomas's Hospital Gazette—The Student—The Leech—University College Hospital Magazine—University of Leeds Medical Society Magazine—University of Toronto Medical Journal—Sydney University Medical Journal—Clinical Journal—East African Medical Journal — The General Practitioner — The Hospital — Bulletins et Mémoires de la Société Médecine de Paris—L'Echo Médicale du Nord —The Medical Forum—The Medical Press and Circular—Medical Times and Long Island Medical Journal—Postgraduate Medical Journal—Reale Società Italiana D'Igiene—Revue Belge des Sciences Médicales—Leprosy Review—British Journal of Venereal Diseases—Archives Hospitalières.

DEVELOPMENT OF THE MUSCLES OF THE LOWER CHEST AND ABDOMEN IN RELATION TO THE TREATMENT OF CERTAIN AFFECTIONS OF THE SPEECH, CHEST AND ABDOMEN.

THE importance of the development of the muscles of the lower chest and abdomen is a subject to which I have devoted myself for many years. These muscles play such an important part with regard to the treatment of various affections of voice and speech, and also as regards the general health and various functions of the body, that I hope some details as to their trained application will be considered worthy of consideration.

AFFECTIONS OF VOICE AND SPEECH.

Long before the war, one could not help noticing the remarkable improvement in the health of many patients who were being treated for affections of the voice and speech. Practically all such patients have to be taught lower costal breathing and a steady contraction of the abdominal muscles as the voice is produced. In a great number of cases the general health was much improved, and in patients of poor physique the body-weight went up to a most impressive degree. One of the best results was a boy with a stammer, sent to me by Dr. Still. The stammer was cured in seven treatments. I saw him afterwards at intervals; the weight was 6 st. 12 lb. in November, 7 st. 6¾ lb. on January 15th, and 8 st. 9¼ lb. on the following October 8th. Incidentally the boy passed first into the Navy. Other patients, sent only for voice or speech troubles, have remarked on the improved condition of their general health, and often of the necessity of the constant use of aperient medicines being overcome. One cannot over-emphasize the importance of the perfect development of the lower chest and abdomen in every form of speech defect and voice affection with the one exception of laryngectomy cases. In these cases, of course, the lungs do not help the voice. I hope some day to describe the way in which patients without a larynx are able to produce a voice. I have the privilege of working with Mr. Lionel Colledge on such cases, and I think it may be interesting to describe how quite a useful voice is acquired with two or three treatments in some of these cases.

The greater part of the successful treatment of stammering consists of a perfect act of breathing, and the correct use of a contraction of the abdominal muscles as the voice is used. Other technique is essential, but it cannot succeed unless the breathing is correct. Any breath that raises the upper chest to the smallest degree is extremely dangerous, and the advice almost invariably given to stammerers to take a big breath is one of the most definite causes of severe stammering (1).

The education of cleft palate cases is another important matter, and correct breathing is necessary in such cases. If the subject is of interest to anyone reading this article, a very full description of my treatment appears in Sir Arbuthnot Lane's book, *Cleft Palate and Hare Lip*. Another description appears in Cheyne and Burghard's *Manual of Surgical Treatment*, vol. iii, and a third in the *British Dental Journal* of September 15th, 1920, which is a very short article giving full instructions for the use of patients on what should be done for the speech in cleft palate cases.

During the war I treated several cases of voice and speech affections, and in 1918 the Ministry of Pensions invited me to undertake the treatment in London of ex-soldiers afflicted in their speech and voice, and I gladly accepted what I considered was a great honour and privilege. I found that these shell-shocked men responded wonderfully to perfected breathing as regards emotional control, and it helped enormously in the restoration of the speech and voice for the men who were aphasic and aphonic, and others who were sadly afflicted with severe stammering (2, 3, 4).

I worked for the Ministry until 1926, when all available patients had been treated, and I hope and believe the work was successful. Sir Lisle Webb wrote to me on March 13th, 1926, an extremely kind letter in which he said: "I should like to take this opportunity of expressing to you the thanks of the Medical Services Department for the excellent work you have done on behalf of the pensioners in whose treatment you have assisted". I feel I may here refer to this appointment, as I always consider that I was asked to take it up because of the post I hold at St. Bartholomew's Hospital.

In thyroidectomy cases it is sometimes quite difficult to avoid injury—either temporary or permanent—to the recurrent laryngeal nerve. This results in an abductor paralysis of the cords. The voice then becomes more or less seriously impaired, and in addition the breathing is difficult and on exertion very exhausting.

Mr. Dunhill has most kindly given me permission to use his name with reference to several cases in which this condition has occurred; and wishes me to say that the improvement in these cases has been of extreme value to the patient, and a great relief to him personally, in that patients who had obvious disability have been improved to an extent that has made them unconscious of the fact that an injury had occurred, and the voice made practically normal.

CHEST AFFECTIONS.

The experience which I had in the war on gunshot wounds of the chest (1) was very helpful in the development of other treatments; I refer especially to the treatment of visceroptosis (5, 6, 7, 8). In the war the average time for beginning exercises was ten to twelve days after rib-resection.

Sir Alfred Rice Oxley wrote to me in connection with some cases as follows:

"I am fully satisfied of the very valuable results you have obtained for us by your treatment. Lung collapse and pleural adhesions have been thereby prevented and the patient's general condition also greatly improved. I am particularly struck by the fact that it is quite possible and safe to begin such exercises as yours at a quite early stage of lung injury, as was done, you will remember, in several of the cases you treated here. I am thoroughly convinced that in cases of lung injury resulting in pleurisy, pneumothorax, etc., early breathing and general exercises, such as you give, are of the utmost value, and constitute a most important item of treatment".

And Sir Alfred Fripp, in returning a note of a case, wrote:

"I am glad you are publishing some of your cases, for, in common with many physicians and surgeons who have watched the effect of your treatment, I feel greatly indebted to your work on behalf of many of my patients recovering from gunshot wounds of the thorax and think the work cannot be too widely known."

(I have published these two letters in a previous article, but as I think they are of importance I have set them out again here.)

Prof. G. E. Gask kindly wrote to me in April last:

"I am of the opinion that early movements in cases of empyema and rib-resection combined with breathing exercises are most beneficial and that they hasten the recovery of the patient by encouraging expansion of the lung".

Mr. A. Tudor Edwards, whose drainage tube with a flange has brought such great comfort to empyema patients, kindly sent the following note to me on the 12th instant:

"I should like to state that I have had very considerable help from you in several empyema cases during the last three years, particularly those in younger subjects, in whom one occasionally finds that rapid collapse of the chest-wall occurs, following drainage of the pleural cavity and often associated with scoliosis. I am quite convinced that exercises such as you are using, especially if carefully controlled, are of great value in restoring the chest-wall and the lung function as near as possible to the normal".

In relation to Mr. Tudor Edwards's opinion the two cases herein set out apply to young patients. In Dr. Morley Fletcher's case please note that the empyema was of two years' duration.

"Mrs. B—'s son, æt. 14. Patient of Dr. P. F. Barton and Dr. J. J. Perkins. Empyema following pneumonia. This case was very severe as to lung and chest collapse. There was a remarkable appearance when the boy stood up, the body being bent over to the left to an almost incredible extent. Breathing exercises were commenced four weeks after resection of rib. The progress was continually good and the empyema wound soon healed. The lung and chest-wall recovered a practically normal condition, and the boy was looking and feeling perfectly well at the end of his treatment. Breathing exercises commenced August 4th, 1916, and continued to November 21st. Seen twelve times. Weight increased during treatment from 6 st. 9 lb. to 7 st. 13½ lb."

Dr. Barton has kindly supplied the following details as to the patient:

"The arm was held tightly to the side, any movement of it producing great pain. There was a strong nervous element in this case in addition to the extreme physical disability. Nothing could be done until the boy's confidence was re-established. The exercises had a very marked effect on this, as the boy at once felt the benefit of them. He is now, November, 1918, very fit and well, and would have got a commission quite easily.

"A. B—. Patient of Dr. H. Morley Fletcher at St. Bartholomew's Hospital. The patient was a little boy. Empyema of two years' standing. Left lung and chest severely collapsed. Large drainage-tube and much discharge when exercises commenced. Body bent over very severely and head almost resting on shoulder. Came into hospital November, 1915. Exercises commenced December 9th, and continued until end of February, 1916. The patient made excellent progress. The empyema wound was soundly healed, and the lung and chest-wall and body posture restored to a very large extent".

Dr. Morley Fletcher has kindly added the following note on this case:

"The thoracic deformity was very marked, and the result obtained by Mr. MacMahon's treatment of exercises was extremely good; in fact far better than I had anticipated or should have believed possible. When I last saw the boy he was in good condition and showed comparatively little deformity".

Dr. F. H. Young has kindly sent me the following note on chronic pulmonary catarrh, and on a certain type of asthma:

"In the treatment of chronic non-tuberculous peri-bronchial inflammatory conditions in children, so called 'chronic pulmonary catarrh', adequate pulmonary ventilation plays a prominent part. The danger is that secretion will remain in the bronchi owing to the fact that the expansion of the bases of the lungs is interfered with by the inflammatory condition. The failure in the respiratory movements is not so much that of inspiration as of expiration. Diaphragmatic breathing as opposed to costal breathing has to be encouraged, and the result to be aimed at is to allow the diaphragm to rise in the thoracic cage. This effect is best produced by the training of the abdominal muscles to play an increased part in respiration, and at the same time to allow the lower ribs to move adequately. This is best achieved by breathing exercises designed specifically for the purpose.

"A type of asthma which is secondary to this peri-bronchial infection is also markedly benefited, especially if at the same time exercises to deal with the secondary forward curvature of the upper part of the dorsal spine are given".

The following is an instance of quick improvement in a girl, æt. 11, who was sent to me in October, 1928. Earlier in the year she had pneumonia, and was left with a patch at the base of the right lung. She developed a mild asthma in August. Seen three times only in October, and exercises were carried out at her home in Devonshire. Her mother wrote to me in February, 1929: "I feel I must just write a line to tell you how wonderfully your treatment has answered. She has

put on nearly two stone in weight and is in every way a different child; I cannot say how grateful we are".

VISCEROPTOSIS.

The treatment of visceroptosis is a matter of great interest and importance. What I wrote in a previous article (9) I still believe absolutely, and I now set out the important part of it again:

"In observing a patient with visceroptosis one invariably sees a marked protrusion of the abdominal wall, and during inspiration a further advance occurs. The muscles are often so weak that they feel like a child's half-inflated air-balloon. Nearly always—and there are exceptions—the lower ribs will have fallen in to a degree corresponding with the advance of the abdominal wall. The costal angle will be seen to be very acute. Tenderness is marked all over the abdomen. Severe constipation is nearly always present, and the complexion generally bad. All patients complain of headache, and many of a bad pain at the back of the neck. Vomiting occurs in some cases, and practically all are conscious of great impairment of the memory and the power of concentration. The acute case has no bright days. Life is one long misery and the outlook to the patient seems hopeless.

"The above is no exaggerated description of numbers of cases of visceroptosis. I know that it is often thought that the ptosis is the result of neurasthenia, and no doubt this is true in many cases, but it is also true that very often the ptosis is the cause of the neurasthenia. The keen desire to get well and the extraordinary and successful efforts put up to do so in several cases do, I think, prove this; also the ptosis following childbirth is, of course, quite out of the first category.

"The exercises set out (*i. e.* in the article referred to) explain themselves, and it will be seen that the lower ribs are expanded very carefully. The expansion is increased until the lower costal region is in a vertical line with the axilla. This expansion automatically supplies an adequate accommodation for the large viscera, and accommodation must necessarily have become very restricted as the ribs fell in, with the advance of the abdominal wall, during the progress of the ptosis. Nor can the original accommodation possibly be regained without a deliberate development of the lower costal region. As this development occurs the costal angle will be seen to be disappearing as an angle and will take on a marked domed appearance. The abdominal muscles are eventually made to contract almost to the spinal column, and with the aid of the operator's hand the organs are pressed upwards. The rectus, transverse and oblique muscles of the abdomen become extremely powerful by the daily exercises, and are well able to support the viscera, which gradually begin to resume their normal functions.

"Each treatment with an operator lasts for forty minutes, with plenty of rest between the series of exercises. Once a good position of the viscera is established no operator is required, and the exercises are reduced to about ten minutes daily".

Mr. A. H. Richardson has kindly sent me the following note:

"I am very glad indeed to hear that you are going to write something for the Medical Journal, as I have been tremendously impressed by the result of your exercises, particularly in cases of visceroptosis. I know of several women whose lives have become entirely different as the result of your treatment".

Here is a typical case: Lady, æt. 36, described by her doctor to me as "suffering from all the conditions of a very pronounced and aggravated visceroptosis, the transverse colon being right down in front of the cæcum". Seen eight times in two months of treatment. At the end of treatment her doctor wrote to me: "A delicate type of woman of great intelligence, but more or less a chronic invalid from auto-intoxication and drugging from visceroptosis. Since the treatment finished I have only seen her once and she is in almost robust health".

Another physician on the staff of one of the London teaching hospitals wrote to me about his patient who had visceroptosis: "You have made her into a new woman and she is more than grateful. It is a most satisfactory result".

Dr. William Byam has kindly written as follows:

"Mr. Cortlandt MacMahon has treated successfully many cases of visceroptosis and colonic stasis for me. Many patients returning from the tropics, suffering from digestive disturbances secondary to colonic stasis, have markedly improved as a result of a course of breathing exercises under the direction of Mr. MacMahon".

Dr. R. Pierret, of Paris, wrote to me at the beginning of May:

"I read with great interest your paper about visceroptosis. Your opinion is very near our French ones, but some of your exercises are new to me. I will have an abstract of your article printed in some of our French medical journals".

In this treatment the patient is helping himself or herself to get well by daily exercises (10, 11, 12). The moral effect is very great. Belts may be necessary in severe cases for a time, but if exercises are not carried out surely the abdominal muscles must become weaker than ever. I think it worth considering whether the wearing of a belt is not, after a time, a daily suggestion of chronic invalidism.

POST-OPERATIVE BREATHING EXERCISES.

In cases of laparotomy, especially when the incision is a long one, it is of the utmost importance that the severed muscles should unite firmly. Contracting exercises for this purpose are applied quite early after operation—sometimes within ten days or earlier. This use of exercises at a very early stage after operation must, I need hardly say, be applied with the utmost care and delicacy.

Mr. Tyrrell-Gray has kindly written the following note with regard to this post-operative treatment of major operation cases of the abdomen:

"The period of convalescence from major abdominal operations should be employed in the preparation of the patient, and his organs, for a resumption of normal activity. Though this period varies with individual surgeons, the writer believes that there is nothing to be gained by being precipitate, provided that the time is occupied with the necessary educational exercises and treatment.

"*The following points are generally insufficiently emphasized:*

"1. During the operation the lower lobes of the lungs are practically thrown "out of commission", while the resulting danger of post-operative pulmonary complications is enhanced by—

"2. The diaphragmatic inhibition which follows. This is commensurate with the type of operation, and is most marked in *major operations in the upper abdomen.*

"3. The resulting defective circulation is especially to be emphasized in:

"(*a*) *The abdominal muscles.* The importance of the efficiency of these on resuming the upright position needs no emphasis.

"(*b*) *The intestinal musculature.* No muscle is efficient with a defective circulation; and, in this belief, the writer has advocated and practised frequent applications of radiant heat in the first week, as the 'sheet anchor' against post-operative ileus.

"Without going into details it is evident that, on all counts, the additional strain on the mechanisms involved by the assumption of the upright position, after a period of recumbency, is liable to lead to varying degrees of breakdown. This is particularly true of subjects of visceroptosis.

"From these considerations alone it is evident that there are good grounds for the advocacy of routine post-operative radiant heat in the early stages, followed by properly conducted breathing exercises afterwards.

"For many years the latter have been directed by Mr. Cortlandt MacMahon in a great number of the writer's patients; and it is impossible to overrate the value of this adjunct to post-operative treatment, particularly in cases of visceroptosis".

The first seven exercises used in this treatment are set out below. They are the most important ones.

Each exercise should be carried out eighteen times, with a rest after each six movements of the exercise. All the exercises should be carried out in a recumbent position, with the head and shoulders slightly raised. It is most important that the act of inspiration and expiration should be silent.

1. The operator places his hands on the side of the lower ribs, level with the bottom of the breast-bone. The patient should breathe in through the nose, and the lower ribs should be felt to be expanding strongly. There should be as little movement as possible of the upper chest. When the fullest inferior lateral costal expansion is acquired, the patient should breathe out through the open mouth, and the ribs should be felt to regain their normal position.

2. The patient should breathe in in three distinct movements, and the lower ribs should be felt to expand with each breath. By degrees the expansions are increased to five movements.

3. The abdominal wall should be contracted inwards, and then allowed to recover its normal position so that an in-and-out movement is made. The operator helps this contraction by pressure on the lower portion of the abdomen. (This is a physical and not a breathing exercise. It should be carried out in series of ten contractions until fifty contractions in all have been made.)

4. The same movement as in No. 3 exercise, but the contractions are made in 1—2—3 movements instead of one movement. On each contraction the operator presses upwards with his hand, increasing the amount of pressure on each contraction.

5. Combine exercises 1 and 3, *i.e.* the patient breathes in through the nose, and the lower ribs are felt to be strongly expanding. The mouth is then opened, and the abdominal muscles slowly and strongly contracted so that the air is driven from the lungs.

6. The same inspiratory movement, but the breath should be held and the abdominal muscles contracted in three to five deliberate movements before breathing out. The operator helps the contraction as before.

7. The patient should breathe in deeply, the breath should be held and two more breaths taken in through the nose and, as air is inspired, two simultaneous contractions of the abdominal muscles should be made. (*N.B.*—This exercise is somewhat severe, and at first should only be carried out six times.)

In conclusion I want to add that these exercises are learnt very thoroughly by the masseuses at the Hospital, who carry out treatment most efficiently. It gives me the greatest pleasure to say I have had invaluable help from the Massage Department.

REFERENCES.

(1) MACMAHON, CORTLANDT.—*St. Bartholomew's Hospital Journal*, August, 1920.
(2) *Trans. Med. Soc. Lond.*, xl.
(3) *Practitioner*, May, 1917.
(4) *Journ. R.A.M.C.*, August, 1917.
(5) *Lancet*, October 2nd, 1915.
(6) *Trans. Med. Soc. Lond.*, xxxix.
(7) *Lancet*, April 26th, 1919.
(8) *St. Bartholomew's Hospital Reports*, lxi.
(9) *St. Bartholomew's Hospital Journal*, June, 1926.
(10) *Practitioner*, October, 1921.
(11) *Brit. Med. Journ.*, July 8th, 1922.
(12) *Lancet*, January 10th, 1925.

CORTLANDT MACMAHON.

THE HISTORY OF THE HEDGEHOG'S ROSARY.

(*Continued from p.* 152.)

MALPIGHI (19) in 1666 had observed that a mass of white fibres remained after washing a blood-clot, and Ruysch, in 1707 (20), showed that a very similar substance could be obtained from blood by whipping it with twigs, and that this largely prevented the clotting of the blood. Leeuwenhoek and many others considered that the clotting of the blood was merely due to the conglomeration of the corpuscles, and it was not until the time of Hewson that this was definitely disproved.

In venesection it was observed that normal blood clotted, forming a red clot, the crassamentum, which after a time contracted and exuded a pale yellowish fluid, the serum. Sometimes, instead of the red clot, a fawn-coloured semitransluscent layer would form on the top of the bleeding bowl. The blood was then termed to be sizzy, and the clot was termed the buffy coat, or crusta phlogista, and was regarded as an indication of an inflamed blood. That this was in a sense correct we must recognize to-day, for the significance of the buffy coat was merely that the blood had a rapid sedimentation rate.

William Hewson (21), who may, I think, be regarded as the first of the hæmatologists, was born in 1739, the son of a Northumbrian apothecary. He was apprenticed to his father, and then, after studying in Newcastle, Edinburgh and Paris, came to London in 1759. He lodged with

John Hunter, and attended William Hunter's anatomy lectures, and studied medicine at Guy's and Thomas's. He soon showed such skill and diligence that in 1761, when John Hunter went abroad with the army, he left him in charge of his dissecting-rooms. In 1762 he went into partnership with William Hunter, and lived over the Titchfield Street rooms, and later assisted him at the Great Windmill Street rooms. Each summer he went for a brain dusting to Paris or Brussels, or up to Edinburgh. In 1767 appeared his first paper, "On the Operation of Perforating the Pleura in Case of Air in that Sac". This is the first description of tapping of

WILLIAM HEWSON, F.R.S.

the chest in spontaneous pneumothorax (all the cases were due to trauma), and he was one of the earliest persons to perform the operation. The paper is well written, and the deductions drawn from animal experiments and post-mortem appearances.

In 1769 he published his paper on the existence of lymphatics in birds, reptiles and fishes, which gained him the Copley Medal of the Royal Society, of which he was made a Fellow the following year. This paper was considered of great importance at the time, for the Hunters maintained that absorption is an exclusive function of lymphatics, and until Hewson's paper it was argued that there were animals that have neither lymphatics nor lacteals. However, Magendie's demonstration that the blood-vessels have an absorbent function threw this into the shade. Another reason for considerable attention being paid to this work was that it raised one of those eternal priority wrangles between Monro Secundus and Hewson. In actual fact neither of them were right, because the lacteals of fishes were described in 1652 by Thomas Bartolin (22).

In the same year that he became a Fellow of the Society he married Mary Stevenson, a highly intelligent woman and a great friend of Benjamin Franklin. However, Hunter had no liking for married men, and broke off his partnership in 1772. Accordingly he started a course of lectures in a theatre which he had built in Craven Street, and it is said that he commenced his lectures with great applause, and before the end of the course succeeded so well that he had more than half the number of pupils that he and Dr. Hunter had when in partnership. However, his success was short-lived, for in 1774 at the age of 35 he died of a dissecting-room wound.

The really important work of Hewson's is his "Experimental Inquiry into the Properties of the blood" (1771). In this he established the essential features of coagulation and discovered the leucocytes in the circulating blood.

The first accurate interpretation of the method of coagulation was made by a French surgeon, Petit (23), who is better known for having performed the first mastoid operation. In a paper read before the Royal Academy of Sciences in 1735, he states that all the parts of the blood are not susceptible of coagulation; further, that the red portion forms no clot without the containing or enveloping white lymph; and finally adds that were it possible for the blood to be fluid until all the lymph rose to the surface this would form the only clot, while the globules and serum would remain fluid. This was only theory, but it is good theorizing, and it remained for Hewson to add the experimental proof. He showed that coagulation could be delayed by cold and neutral salts, etc., indefinitely, and that if it were diluted it would clot once more. Further, that the coagulable plasma can be separated off from the corpuscles, and that this plasma contains an insoluble substance which he called coagulable lymph, and could be precipitated and removed at a temperature a little over 50° C. Coagulation was due in Hewson's opinion to the formation in the plasma of this coagulable lymph, which we now know to be fibrinogen.

This theory did not fit in at all well with John Hunter's (24) view, who considered that the blood was alive and that it was conscious of its being a useful part of the body. Further, that solidification of the fibrin was a vital act analogous to the contraction of muscular fibres.

In 1804 Fourcroy (25), Hewson's work having been forgotten, maintained that fibrin existed in the plasma,

and that clotting was due to spontaneous solidification. This was contested by Andrew Buchanan (26), who showed that if leucocytes or serum were added to a serous fluid it produced clotting; he compared it to the action of rennin on milk.

However, all these well-founded facts were not known on the Continent, and were forgotten for the most part here, so that absurd theories became once more rife. Amongst the most popular was that of Dr. Richardson (27), who maintained that the fluidity of the blood depends upon a certain amount of free ammonia holding the fibrin in solution, and that coagulation of the blood is due to the escape of the volatile alkali on exposure to the air. To refute this, Joseph Lister (28), in 1863, in his Croonian, performed innumerable careful experiments, and showed that in the blood-vessels it depends upon their injury. About the same time Schmidt (29) repeated all Buchanan's work, and together with Hammerstein (30) and Howell (31) established the current ideas on this subject.

Hewson's other great discovery was that of the leucocytes, and certain points in connection with the red corpuscles.

First he proved that the corpuscles are not globules as Leuwonhoeck had stated, but biconcave discs, and that they consist of a small solid particle at the centre with a vesicle around it. No doubt he had seen the nucleus of the non-mammalian corpuscle, and considered that the central pallor of the mammalian corpuscle was the same thing; he also observed that their shape differed whether they were in hyper- or hypotonic saline. He also examined the glands and spleen, and was the first to observe the lymphocyte in these organs and also in the blood. He imagined that the central particle of the corpuscle was formed by the lymphocyte, which arose in the spleen and glands, and that the red vesicle around it was supplied by the lymph; and so by the end of the eighteenth century we have arrived at a recognition of two elements of the blood—a theory of erythropoiesis, and a very clear understanding of blood coagulation.

The next factor which was going to enable us to advance further was supplied by a London wine merchant, Joseph Jackson Lister, the father of Lord Lister, who spent his leisure in studying optics, and in 1830 devised an achromatic objective which immediately opened up enormous possibilities of accurate microscopical observation.

In 1838 Weber (32) observed a nucleated red blood-cell in a human twelve weeks' fœtus.

Two years later Reichert (33) showed that there were nucleated red cells in the embryonic liver, and suggested that this might be the site of blood-cell formation—a return to the Galenic theory, but on a sounder foundation.

While these great advances were being made on the Continent, there were many strange whimsies circulating in England.

Martin Barry (34), who was the first to see a spermatozoon entering an ovum, failed to recognize the difference between the red and colourless corpuscles, and believed that all the tissues were formed of them!

William Addison (35), not to be confused with Thomas, to whom we will refer later, was the first person to observe diapedesis, over which, on a frog's cornea, such a battle raged a few years later between Cohnheim, Virchow, Recklinghausen and Strecker. Though it is a fascinating story, it cannot be described here. Addison also observed that there was a leucocytosis in the region of an inflammatory process, the credit for which is usually given to Virchow (36).

In 1846 Thomas Wharton Jones (37), of Charing Cross, read some papers on the blood-corpuscles to the Royal Society, and by the addition of dilute acetic acid he showed that there were three types of cells—the granule cell, which on maturation became the nucleated cell, and finally this developed into its phase of the free cellæform nucleus, which phase only occurred in man and the highest animals. In addition he recognized the constant destruction and formation of new cells, following Hewson as to their glandular origin. He regarded the function of the corpuscles as that of floating glandular cells, their especial office being to convert albumen into fibrin. He also observed the amœboid movement of the leucocytes, which was more clearly demonstrated by Davaine (38), who observed it both *in vitro* and *vivo*.

A. H. T. R.-S.

(*To be continued.*)

THE ADVENTURE OF THE PLATINUM BLONDE.

(*With apologies to the late Sir Arthur Conan Doyle.*)

I HAVE often been assured by people of no mean education that they believe in the virtue or evil attributed to certain days, and I have usually been inclined to decry them. But several curious coincidences led me to revise my opinion, and after much thought and a long and careful perusal of my journals I have come more nearly to agree that there is perhaps something in their contention.

What particularly impressed me was that Wednesday and Friday particularly are the days on which I have met with incidents memorable enough to remain for ever fresh in my memory. It was on Wednesday the 12th of April, 19—, that I happened upon one such affair which even now is still as vividly imprinted upon my mind as on the day when it occurred.

For some reason a dearth of criminal work had given Sherlock Holmes that leisure which he has such a faculty for using, but instead of working at his research or his records he had been obliged to devote his time to psychology, the scope of which had been recently enlarged in the medical curriculum. He had been working hard and alone, struggling with one of those theoretical treatises which his somewhat material mind found so uncongenial, when I invaded his rooms uninvited for breakfast one morning in order to give him the relief of my companionship in his continued solitude. He looked pale and drawn. I could see he was sleeping badly, but he greeted me with a smile.

"Good morning, Watson," he said; "you have not yet breakfasted I see."

"How do you know?"

"Well, firstly by the way you looked at the sideboard as you came in, and secondly there is no egg on your moustache. Your moustache always reminds me of a bird's nest; however, let us see what Mrs. Hudson has given us this morning. Ah! here we have a menu for all appetites—rolls and butter, eggs and bacon, gorgonzola cheese, porridge, cream buns, pork pie, stewed rhubarb, fried haggis, coffee and stout. Which will you have?"

I chose the traditional bacon and eggs and coffee. Holmes sandwiched three rashers of fat bacon between two thick slabs of pork pie and ate avidly, with an occasional deep draught of stout, scanning the morning papers meanwhile with his keen eyes. He threw them aside with disgust, and turned to me:

"Nothing for me," he cried; "crime as a high-class profession seems to be dead."

"You have your examination soon," I ventured.

"True, but that is not until the thirtieth."

"However, you will be stale if you don't get a change. Why not have a few days off and refresh your mind with the best triad I can recommend—the countryside and sunshine, good music and fair hair?"

"Dark hair," he corrected me.

"I prefer fair," I said; whereat we fell into an argument in which Holmes grew more and more heated, until the veins stood out on his forehead and he was shouting at the top of his voice. I started with the present day, and we enumerated famous beauties alternately dark and fair throughout the age still finally I reached ancient Rome.

"What about Annia Galeria Faustina the Younger, wife of Marcus Aurelius, who died in 130 B.C.?" I asked. I had seen her bust the previous day in the British Museum and admired her style of hair-dressing, which I considered would have been most effective had she chanced to be a blonde—whether she was is not recorded.

Holmes was silent and bit his nails; his knowledge of the classics has its weak patches. We were interrupted here by a ring at the front door, and shortly after in came Mrs. Hudson with a card.

"A lady to see you, sir," she said.

Holmes glanced at the card through a thick haze of tobacco-smoke.

"Ask her to wait. Now Watson, what do you make of this card—who and what is she?"

"She is Lade Yvonne Cecily Shirley-Brook."

"Go on—is she old or young?"

"She is young, has a large hand-bag, is rather careless, has fair hair, and this name is probably an assumed one: she is also fond of 'Lily of the Valley' as a perfume."

"Balderdash," retorted Holmes.

"Well, the card is badly printed on indifferent material; presumably she had a few printed for her purpose. She had this one loose in her handbag, where it has come in contact with her lipstick at this corner."

"That's blood from Mrs. Hudson's thumb—she's preparing a rabbit for lunch; did you notice her thumb?"

"No, but I saw the rabbit on the hall table as I came in; this is not blood; in addition the bag is so capacious that her powder-box came open inside it and here is some, and also a wavy fair hair adhering to it; it is scented with 'Lily of the Valley'."

"She is some doddering impoverished dowager who has lost a Pekingese in the traffic and is too fat to follow it so has come to me for help."

"From the rate at which she is bounding upstairs I should imagine she is something of an athlete."

"Come in," called Holmes, and he sat speechless as there walked gracefully into the room a young girl of consummate beauty from her perfectly waved fair hair, the sort called "platinum blonde," to her shapely feet. She was exquisitely groomed and stylishly dressed; her eyes sparkled beneath carefully plucked eyebrows, and her voice was a delight to hear—low, musical and perfectly modulated.

"Good morning, gentlemen," she said.

"Good morning," we replied simultaneously.

"My name is Holmes," began my friend, "and this is my friend, Dr. Watson."

I bowed low and shook her hand warmly.

"Don't let me keep you, Watson—I know how busy you medical men are."

"Not a bit, Holmes," I replied, "things are very slack at present."

"I know you are anxious to see that patient with herpes ——"

"That's done with; she died this morning at three—I was there. I think it must have been smallpox after all."

"Don't go, please, Dr. Watson," pleaded Lady Yvonne; "I *adore* doctors, they are so marvellous—so clever and kind. Do please give me a piece of that pie; I *love* pork pies."

I cut her a huge wedge and gave her a cup of coffee; I refilled my own, lit my pipe and sank down in an arm-chair; she sat on the arm with her pie in her fingers.

"Mr. Holmes, I am in a bad fix."

"Debt, I suppose," said he.

"No—worse than that; blackmail. You see I have been an acrobatic dancer, and also I did what is called 'point-dancing' in the Russian Ballet. At that time I was attracted by a man named George Curtis. I wrote him some letters in affectionate terms, but soon learned that he is an unscrupulous villain, a dishonest share-dealer and blackmailer who has preyed on other girls before and, in fact, makes his living by it. Naturally I broke our association and asked for my letters to be returned. He has offered them to me at a price which I cannot pay—the alternative is disgrace. The name I gave you is partly inaccurate, but I am indeed a person of title with a high position in society. I went on the stage for a little amusement. Fortunately there is no address on the letters, but they are signed by a nickname by which I am familiarly known by my intimate friends, and the writing is unmistakably mine."

"Where does he keep these letters?"

"In a metal case, soldered all round and sewn into the lining of his trousers. He always carries it with him."

"Rather a delicate business," said my friend. "Will you please call on me this afternoon at five and I will suggest a scheme of action?"

"Thank you," she said as she went out, "I hope you will—I need help so badly."

Shortly after I left and during my round I completely forgot Lady Yvonne. My evening surgery was unusually heavy, but was uninterrupted except by a telephone call from Holmes.

"Oh, Watson, about that blonde girl," he said, "I cannot possibly take it on. I looked up the examination date and found I had misread it owing to the bad printing; it is not on the thirtieth, but twentieth. You see I don't know much about tuning-forks and hydraulic engines—I was leaving them to the last. I may be able to give a little help for a day or two in the most difficult negotiations which you could not do, but apart from that I have handed over the whole matter to you."

"Good Heavens," I said, "you fool."

"What?"

"Weather's cool," I remarked.

"Never mind that; this business will probably be simpler than I thought, and in any case she has fair hair, which I dislike."

"What about Annia Galeria the Younger, wife of Marcus Aurelius?" I shouted, but he slammed down his receiver.

And sure enough, after dinner a visitor was announced. I went through to find Lady Yvonne looking a trifle perturbed.

"That man Holmes is a fool" she began ——

"No," I interrupted, "you may call him anything you like, but I won't hear him called a fool."

"Well he has some other business to do, so has turned it on to you excepting a small part. I have drawn up an agreement where for your services whenever necessary until this is over I pay you the sum of two hundred and fifty guineas. Will you sign it?"

"Very well," I said, "and who keeps this document?"

"I do," she replied.

"But ——"

"That is all right. I keep my word if you do yours. I have thought out a good plan. We must get Curtis to spend a day or two with Mr. Holmes at Baker Street with a view to selling some shares. You must be Holmes's envoy. Curtis spends every week-end golfing in the country. I will act as your chauffeur and drive you out, where we will pick him up, then drive back past Aylsford, where we pick up Sherlock; after that we go through Belgravia Park, Lord Southport's estate (he is away at present), and after a circuitous drive we come out on the south side, where we head for London. Once there, your friend has promised to let me have the letters within forty-eight hours."

"What happens to me?"

"Oh, you fade out in the park," she said.

"Eh?"

"Don't say 'eh'."

"I beg your pardon."

"That's better; we must have a rehearsal or two together and confer when necessary."

"What about to-morrow evening?" I suggested.

"Very well—I shall probably be hungry and tired."

"So may I; we could have dinner at Leonie's and then refresh our jaded selves at the Russian Ballet."

"Done!" she cried; "Good night, doctor."

The conference went off splendidly; her ladyship was

in great form, dazzling and charming. She was a brilliant conversationalist. When we parted she suggested a rehearsal the following morning.

At four-thirty, however, I received a hoarse summons up the speaking-tube to come and see Mrs. Miller's baby at once; it had had a "pain in its inside for a week"; the messenger would take me now in his car. After a somewhat angry conversation, ending in a torrent of lurid language from the other party, who threatened to come up and break every bone in my body if I was not quick, I threw down the tube, dressed with many yawns and emerged at my front door to find Lady Yvonne sitting serenely on the door step smoking a cigarette; a large touring car was standing by.

"Well I'm dashed," I said.

"Good morning; come on Watson you lazy beast," she replied; "if I were as late as this for a rehearsal I should be sacked. Why don't you emulate the fire-brigade and learn to dress in ten seconds and not argue about it? We are late now, and I shall have to drive like stink; jump in."

I know nothing of the particular type of driving she mentioned, but her ladyship drove like the wind. In a few minutes we were leaving the houses behind and were roaring out into the country. I held my hat on with both hands; her little one was laid on the seat; her hair was streaming behind like a Valkyrie's. On turning a corner at top speed, as I clutched the side with both hands my hat flew off and sailed away to disappear from view. Hearing my cry of distress she looked at me and laughed. After a hair-raising drive of over fifty miles we stopped. I had lost my bearings completely; trees and fences appeared ghost-like in the early morning mist. It was chilly and I was in an evil humour.

"This is our destination," she said; "the golf course is quite near and you have to find Curtis and bring him along. I will drive away meanwhile and bring another car so you must allow me at least twenty minutes before I can get back. We pick up Mr. Holmes about twenty miles further south and then make for London."

We drove back and stopped at what had once been a great coaching inn, where we had a large breakfast. Somewhat cheered, we both waxed conversational and spent an enjoyable time smoking and chatting over the huge fire, after which she left me within easy reach of my house by cab.

The next two days I heard nothing from Holmes or my associate. The following morning, however, a voice implored me to come to the aid of Mr. Postlesnitch, who had had a fit. Looking at my watch I saw it was nearly three. I guessed who it was, and after a few questions succeeded in driving her into a hole, whereupon I made a diagnosis of hysteria and told her to go back and smack Mr. Postlesnitch on his fat head with a wet towel, preferably with a knot on the end.

"Dr. Watson, its Yvonne," came in reply.

"Yvonne, begone," I said, and buried my head beneath the bed-clothes. In a few seconds a volley of stones rattled against the window, which I ignored until, after a short pause and a scrambling on the wall, I received a terrific blow on the vault of the skull which nearly broke my neck. I peeped out, and framed in the open window was the lively face of her ladyship, who had climbed up the creeper and hurled a mighty sod at me.

"Come on, lazybones," she said, "the car's waiting."

"Go away; why are you not asleep?"

"I never sleep," she replied, "and if you don't appear in a few minutes I'll play the garden hose on you."

I lingered a few minutes; then going to the window I saw her dragging the hose out of the tool-shed. I dressed hurriedly, went out and joined her. Once more I endured the torture of a furious drive. We went by a different route from before, and eventually drew up outside Belgravia Park. I had to get out and open the huge iron gates. After driving for nearly a mile she stopped and produced a parcel from under the seat.

"These are for you," she said; "you must have a disguise, and I chose a parson's outfit for you."

"Really, my lady," I began.

"You might put on the hat and jacket now," she answered firmly.

The fit was execrable—the jacket too small, the hat too big. When I turned round for her approval my companion collapsed in the driving seat and peals of laughter echoed through the trees.

"Holy smoke!" she said, "you look like Guy Fawkes. Come on."

A little later we approached a bridge spanning a wide stream.

"This is where you throw Curtis over the parapet," she remarked.

"Eh?" I exclaimed.

Lady Yvonne put on her brakes, stopped dead and looked at me severely.

"If you say 'eh' again I'll hit you," she said.

"I beg your pardon."

"Granted. We all stop here to admire the view. Mr. Holmes looks over one side of the bridge, you and Curtis over the other. I stay in the car. You distract his attention and throw him overboard when the time is ripe. Holmes rescues him drenched through, which will make him all the more ready to hasten to London.

I am taking no chances you see. You, of course, disappear through the bushes as fast as you can and make for home in top gear. I thought that plan out all by myself."

"Yes," I replied, "it sounds like it."

"This is the last chance we shall have for a rehearsal. I am rehearsing some point-dancing myself to-morrow."

"Thank Heaven for that."

By now the darkness had disappeared, and turning the nose of her car she drove back to the hostelry, and after an early breakfast we parted as before. Holmes rang me up later in the morning.

"I have rung up Curtis," he informed me, "and arranged for you to call for him at his golf club on Wednesday. I told him I was one of your old parishioners."

Two days later, according to our arrangements, I took my clerical outfit to a thickly wooded spot, and after changing, put my clothes in a parcel under my arm and waited. Soon a noise like a distant aeroplane together with an occasional ear-splitting hoot heralded the approach of Lady Shirley-Brook, driving as usual "like stink". I stepped out of my hiding-place and she stopped her car. It was about two p.m.; she leaned over the side and laid her hand on my arm.

"Doctor, you are a dear," she said; "I was so worried all last night in case you wouldn't be here."

"That's very kind of you to say so," I replied; "here I am," and jumping in beside her we started.

She was certainly a remarkable and accomplished driver. In less than two hours she dropped me near the golf course and sped on to change her car.

Pressing my hat well over my eyes I walked boldly over the course towards the club-house. Many people were playing and I was hit by a ball more than once, but went on undeterred. The players shouted after me, but I had no time for their apologies, and did not stop. At length I reached the club-house, walked up the steps and into the refreshment room. Following my inquiry a kind-hearted member piloted me to a huge man in golfing kit arguing with another over their game. My quarry was a powerfully built man with a flushed face and a loud voice—I concluded that he had made the best use of his time in the bar before it closed.

"Mr. Curtis?" I asked.

"Well?"

"My name is Jeremy Hattrap, and an old parishioner of mine, Mr. Augustus Bloomfield, asked me to call for you; we shall meet him on our way to London."

Curtis began his argument all over again, and it was only after fifteen minutes that I could drag him away. He was markedly unsteady and his speech indistinct. After another perilous and zig-zag journey across the course we arrived at a lane, at the bottom of which was a dark saloon car. I shoved my passenger into the back, put in his bag and climbed in myself. The chauffeur I noticed was dressed in a heavy coat with deep collar turned up, a cap drawn well down, goggles and gloves. Curtis began to improve a trifle and take an interest in me. This I counteracted by developing a gradually increasing deafness until he desisted with an imprecation. After about thirty miles had passed we drew up outside the "Goat in Boots", but no sign of Holmes was there. However, after prolonged hooting the door opened and out he came, most excellently disguised as a prosperous business man. I got out and introduced him to Curtis. Holmes rubbed his hands with delight as he surveyed his formidable opponent.

"Let me see," he said, "you had better sit in front—er—vicar."

"Rat-trap," bawled Curtis from inside.

I opened the door and climbed in.

"You idiot, why were you so long in the club-house?" hissed the driver, "I nearly gave you up as lost."

"Never mind," I said, raising my voice, "drive home, and be more careful than you were coming out, you great clumsy clodhopping oaf!"

The only retort was a well-aimed kick which confined my attention to my shin for some time; we were fortunately separated from the other two by glass panels covered with blinds. Lady Yvonne gradually slowed down and turned towards me, "Good luck", she said, and smiled.

Curtis, Holmes and I got out.

"A little-known beauty spot," my friend was saying, "you must see it."

We all approached the centre of the bridge and looked into the water; it was twenty feet below the arch and about fifteen feet deep. Holmes moved to the other side and left us.

"Look!" I shouted, "a salmon with two heads!"

Curtis leaned dangerously over and stared hard at the water.

"Where is it?"

"Just going under the bridge," I said, and with that he leaned over further, standing only on one leg. I leapt at that leg, seized it with both hands and hoisted it perpendicularly into the air. My victim gave a yell and went over, clutching one of the great stones of the parapet to his bosom. There was a magnificent splash, which nearly soaked me, and thankful that my part was done, I began to run; as I passed the car her ladyship's arm stopped me—

"Well done, my dear Watson," she said in her lovely voice; "go straight through those woods till you cross

the fence, then down to the right and you will be all right. Here are your clothes. Bye-bye."

I tore along with my ears strained for sounds of pursuit. All went well and I reached my house a trifle weary, but in time for a good dinner. F. W. J. W.

(*To be concluded.*)

STUDENTS' UNION.

CRICKET CLUB.

The imposing list of aspirant cricketers which greeted us at the start of our present season might have prepared us for the unexpected; the results to hand reassure us that all our teams will maintain their standards and that we shall be successful.

The inhospitality of the weather prevented the 1st XI's opening game against the Wanderers from taking place. This would seem to be the usual fate of our opening fixture; it is three years since this fixture was completed.

Against Bickley Park on Saturday, May 6th, an XI containing only one newcomer proved successful in an entertaining game at Winchmore Hill. In this new fixture it was very gratifying to dismiss the opposition for 98 runs, and to pass that total with but 4 wickets down. Morison's 57 not out, contributing largely to our final total of 164 for 5 wickets, was very commendable in this, his first game with the 1st XI.

On Saturday, May 13th, we met our neighbours, Winchmore Hill, on foreign soil. The inclement weather prevented anything but a very dull drawn game, but this was counterbalanced by a measure of individual success, particularly by Wheeler's knock of 53 runs, scored in an opening partnership of 71 runs. The Bart.'s total was 173 for 6 wickets (declared); that of our opponents, 98 for 5.

Another drawn game resulted on Saturday, May 20th, *versus* the Metropolitan Police, played at Imber Court. Batting first on a fast, firm wicket the Police accumulated some 187 runs for 9 wickets (declared); of these Howard made 75 in a typical left-hander's free-hitting manner, and he was to some degree responsible for our excellent, active fielding. Of the bowlers, Mundy bowled with most consistency. On batting we started badly against fast bowling, and 6 wickets were down for 70 runs. However, Wilson (39) and Dransfield (25 not out) then came together and added 50 runs whilst playing out time. A late start prevented what most certainly would have been a fine finish.

The 2nd XI opened their season on April 29th at Chiswick against K.E.B. This was an addition to our fixture list, and we proved just too strong for the opposition. K.E.B. batted first and made 91 runs, Dolly taking 5 wickets for 20 runs, while we knocked off the necessary runs with 4 wickets to spare. Of the newcomers to the side, Nicoll, Hayes and Cochrane showed a welcome orthodoxy.

Fielding a somewhat weaker side the 2nd XI managed to defeat the R.A.F. (Northolt) XI on Saturday, May 6th. The side was captained by J. R. R. Jenkins, a former skipper, and included a useful proportion of new talent. Of the latter, Evans made 33 of the ultimate total of 132 runs, while Nicoll made 25. The opposition totalled only 82 runs, Cochrane being our most successful bowler.

The game arranged for Wednesday, May 10th, was postponed by the Architectural Association until July 8th.

On Wednesday, May 17th, we met new opponents in the Times C.C. at Ravensbourne. It seemed a great pity that in this, one of our few all-day games, such a weak side should be fielded. We batted first and seemed set for a fine score when the first wicket fell at 31, but a series of "first-balls" altered the total to one of 44 for 7 wickets. Ultimately Jones-Roberts and Hayes, by dint of good driving, enabled us to compile a total of 86. Perhaps we were unlucky in that our more dependable batsmen failed us, but even so the bowling was never superlative. Of course, our opponents soon passed our total, and eventually reached 222 for 8 wickets, three men approximating to 50 runs. A solitary crumb was the all-round display of Jones-Roberts—he should add to the nucleus of a strong side—but this was offset by such rank fielding.

On Saturday, May 20th, we met Old Paulines II at Thames Ditton. The wicket was deplorable enough to be prohibitive of almost any kind of medium-fast bowling; even so Wedd, who was skippering the side, made his century, Mundy (M. L.) and Ross reached the 40's, and the total was one of 251 (for 7 wickets declared). This century, the first of the season, was a characteristic display of driving and hitting from Wedd's battery of strokes. The bowling of Jones-Roberts, Wedd and Mundy proved too good for the Paulines, who totalled only 81 runs. A very comfortable victory!

C. M. D.

ATHLETIC CLUB.

BART.'S *v.* EMMANUEL *v.* QUEENS' *v.* CAIUS COLLEGES, CAMBRIDGE.

This quadrangular fixture took place at Winchmore Hill on Saturday, April 29th, and resulted in the narrowest of victories for us by a single point over Emmanuel, Caius and Queens' being third and fourth respectively.

The weather was perfect, but the track was not as firm as it might have been owing to some heavy rain overnight. Nevertheless the Bart.'s team performed brilliantly to beat the "Emma" side, containing five Blues, and which had been in the Final of the 1st Division Inter-Collegiate Championship at Cambridge for the past two years.

Although we only secured three clear victories (440 Yds., 880 Yds., and Putting the Weight) to Emmanuel's five, we were placed in every event, and this indicates our all-round strength, which is encouraging for the Inter-Hospital Cup.

As expected, we saw some brilliant performances from the Blues. E. I. Davies, the Inter-Varsity winner, won the "Hundred" with the greatest of ease in some time inside "evens". The track, however, was found later to be quite a yard short! R. W. Bevans's long jump of 22 ft. 10 in. was almost beyond the jumping pit, which had to be lengthened! O. Sutermeister, the American, soared over 12 ft. in the Pole Vault, while J. O. Fielding secured a "double" for Queens' by winning the High Jump and Hurdles.

No account would be complete without a word of praise for the really magnificent running of C. P. C. Reilly in the 440 Yards for Bart.'s. He not only won this race with the greatest of ease in 53⅘ secs., beating J. C. Stothard, the Blue, by 6 yards, but also gave such an exhibition of fine striding and ease of action that cannot have been seen at Winchmore Hill since the days of H. B. Stallard. His effort to catch R. M. Marsh in the 880 Yds. Medley Relay was almost successful, although he had some 15 yds. to make up.

J. W. P.

RESULTS.

100 Yards: 1, E. I. Davis (Emmanuel); 2, W. M. Greenway (Caius); 3, J. G. Nel (Bart.'s). Time, 9⅗ sec. ?

440 Yards: 1, C. P. C. Reilly (Bart.'s); 2, J. C. Stothard (Caius); 3, J. W. S. Edmundson (Emmanuel). Time, 53⅘ sec.

880 Yards: 1, J. W. Perrott (Bart.'s); 2, A. H. Pardhy (Caius); 3, R. J. Todd (Emmanuel). Time, 2 min. 8 sec.

1 Mile: 1, E. I. Akeroyd (Emmanuel); 2, J. R. Strong (Bart.'s); 3, K. O. Black (Bart.'s). Time, 4 min. 43⅗ sec.

Long Jump: 1, R. W. Bevans (Emmanuel); 2, W. M. Greenway (Caius); 3, J. G. Youngman (Bart.'s). Distance 22 ft. 10 in.

Pole Vault: 1, O. Sutermeister (Emmanuel); 2, K. W. Martin (Bart.'s); 3, J. A. Gordon (Queens'). Height, 12 ft.

High Jump: 1, J. Fielding (Queens'); 2, J. Smart (Bart.'s); 3, R. W. Bevans (Emmanuel). Height, 5 ft. 6 in.

Putting the Weight: 1, G. D. Wedd (Bart.'s); 2, P. Lacren (Caius); 3, O. Sutermeister (Emmanuel). Distance, 34 ft. 4 in.

120 Yards Hurdles: 1, J. O. Fielding (Queens'); 2, W. D. Coltart (Bart.'s); 3, E. I. Davis (Emmanuel). Time, 17½ sec.

Medley Relay: 1, Emmanuel; 2, Bart.'s; 3, Queens'.

Final Points: 1, Bart.'s, 35 pts.; 2, Emmanuel, 34 pts.; 3, Caius 15 pts.; 4, Queens', 14 pts.

ANNUAL HOSPITAL SPORTS.

Of all the sporting fixtures in the year, perhaps an athletic meeting demands the most careful organization—an organization which often calls for continual worry. It is therefore all the more pleasing when the event is a success in every way. Not only may the Hospital Sports this year be said to be a social success from a financial point of view, but more important still were the outstanding athletic

successes which were achieved, for no fewer than five Hospital "records" were broken. It was also good to see that almost a hundred athletically-minded students travelled up to Winchmore Hill to watch "the Games" on Saturday, May 13th. Most of them were accompanied by equally athletically-minded sisters, mothers and other members of the fair sex, all enraptured by feats of strength and skill. What particular event interested them most we do not know (we dare not ask): perhaps it was Nel's sprinting, or Martin's pole-vaulting, or Dransfield's javelin-hurling, or perhaps even Harris's effort in the 120 yards handicap; at any rate we were assured of their profound interest, and therein lay the social success of the Sports.

Particularly pleasing this year was the intense interest taken in the Sports by the Rugger Club. No fewer than ten entered for almost every event with practically no training; nevertheless they derived enough enjoyment to repay them for their efforts. Two Rugger men had an intensely exciting private Olympiad, and the 1st XV concluded their day by winning the Inter-Club Relay Cup.

J. G. Nel started the afternoon's events by winning the "Hundred" in "evens", only to find later that the "record" could not be allowed since the track was found to be over a yard short. C. M. Dransfield then succeeded in hurling a javelin 131 ft. 3 in. to beat his previous "record" of 123 ft. E. E. Harris was only 2 ft. behind him. In the heats of the 120 Yards Handicap so many distinguished themselves that it is impossible to mention names. The 880 Yards provided another Perrott-Strong duel from scratch, but not without some very formidable opposition from J. D. Wilson and R. Mundy, both running extremely well.

In the Pole Vault K. W. Martin, clearing 10 ft. 9 in., improved his own "record" by 6 in. The 220 Yards final produced the best finish of the day, and also, by the way, the best performance. Nel, as usual, got away quickly, and was well into his running before Reilly, yet the latter, with a truly magnificent effort 50 yards from the tape, started to gain on Nel. In the last 20 yards Reilly was going up rapidly on Nel, but the two breasted the tape together in the phenomenal time of 22½ seconds—a Hospital record not likely to be broken for some time. Reilly and Nel had another excellent duel in the "Quarter", but here exactly the opposite happened. Nel gained rapidly on Reilly in the last 80 yards, but failed to catch him by about 1½ yards. Reilly's time of 52½ sec. was extraordinarily good for the Winchmore track.

K. O. Black created something of a surprise by completely outpacing J. R. Strong at the end of the Mile. Black had previously won the 3 Miles in record time at the White City. In the High Jump J. Smart quite excelled himself by clearing 5 ft. 8 in. with a perfect "scissors" action. This was another Hospital record. As expected, G. D. Wedd and J. G. Youngman won the Weight and the Long Jump respectively, and in the latter event G. A. Akeroyd, a freshman, showed distinct promise. Youngman achieved a "double" by also winning the Hurdles in 17½ sec.

At the conclusion of the events we were very much indebted to Lady Gordon-Watson for presenting the Challenge Cups and Medals to the winners. We are also extremely grateful to all those members of the Staff who acted as officials in the capacity of judges, starters, timekeepers or announcers, and also to many others who helped to make our Sports the success that they were. Mr. T. H. Just, the President of the Club, closed the proceedings by proposing a vote of thanks to Lady Gordon-Watson for presenting the Cups.

J. W. P.

RESULTS.

100 Yards: 1, J. G. Nel (holder); 2, C. P. Reilly; 3, J. G. Youngman. Won by 2 ft. Time, 10 sec. (Record disallowed.)

Throwing the Javelin: 1, C. M. Dransfield (holder); 2, E. E. Harris; 3, J. G. Youngman. Distance, 131 ft. 3 in. (Hospital record.)

120 Yards Handicap: 1, B. A. Thomas (2 yards); 2, K. A. Butler (3 yards), 3, T. P. Story (5 yards). Won by inches. Time, 12⅘ sec.

880 Yards Handicap: 1, J. R. Strong (scr.); 2, J. W. Perrott (scr.); 3, J. D. Wilson (40 yds.). Won by 4 yards. Time, 2 min. 7⅗ sec.

Pole Vault: 1, K. W. Martin (holder); 2, J. Shields. Height, 10 ft. 9 in. (Hospital record.)

Putting the Weight: 1, G. D. Wedd; 2, C. M. Dransfield and J. Shields. Distance 34 ft. 10 in.

220 Yards: 1, J. G. Nel (holder), C. P. Reilly; 3, W. M. Jopling. Won by 6 yards. Time 22½ sec. (Hospital record.)

Mile: 1, K. O. Black; 2, J. R. Strong (holder); 3, M. B. Lea. Won by 10 yards. Time, 4 min. 50⅘ sec.

Long Jump: 1, J. G. Youngman; 2, G. A. Akeroyd; 3, J. G. Nel. Distance, 20 ft. 5 in.

High Jump: 1, J. Smart (holder); 2, K. W. Martin; 3, R. Mundy. Height, 5 ft. 8 in. (Hospital record.)

120 Yards Hurdles: 1, J. G. Youngman; 2, W. D. Coltart (holder); 3, J. R. Kingdon. Won by 3 yards. Time, 17½ sec.

440 Yards: 1, C. P. Reilly; 2, J. G. Nel; 3, W. M. Jopling (holder). Won by 1½ yards. Time, 52½ sec.

Inter-Club Relay Cup (4 × 220 Yards): 1, Rugger 1st XV; 2, Rugger "B" XV; 3, Rugger "A" XV. Time, 1 min. 40 sec.

Housemen's Race (100 Yards): 1, A. T. Blair; 2, F. J. Beilby.

REVIEWS.

CLINICAL OPHTHALMOLOGY FOR HOUSE SURGEONS AND STUDENTS. By J. MYLES BICKERTON and L. H. SAVIN. (London: H. K. Lewis & Co., Ltd., 1933.) Pp. vii + 158. With 92 illustrations (including 6 plates). Price 7*s.* 6*d.* net.

This is one of the most useful books for the student in the Eye Department that we have seen. For its composition the authors have studied the examination papers of many years, and have succeeded in presenting the necessary facts in a remarkably small space.

The text is well arranged, the type being conducive to quick learning and easy reference. The illustrations are excellent, particularly the plates showing fundus conditions.

The clinical point of view is adhered to throughout. Particularly valuable are the chapters on case examination, sight-testing and ophthalmoscopic appearances, where the authors' sympathy with the puzzled beginner is well shown. One chapter is devoted to ophthalmic formulæ and there is an invaluable appendix on the instruments used in operations, with six pages of illustrations. All recent advances are included and, besides being simple enough for the dullest beginner, the book contains sufficient to pass the strictest examiner.

It is to be recommended to every student, especially those who are appalled by the complexity, size and price of the bigger text-books on the subject.

GETTING QUALIFIED. By DAVID SCOTT, M.R.C.S., L.R.C.P. (London: John Bale, Sons & Danielsson, Ltd., 1933.) Pp. xi + 219. Price 7*s.* 6*d.* net.

If one of the men of Brobdingnag were to return Gulliver's call and visit our land to-day, he would write perhaps just such a book as this, if he cared to mention a modern medical school at all. For it is the work of a superior being watching strange, inferior people doing strange, sometimes interesting things.

Ostensibly the book is written to inform a sadly unenlightened public that the physician's lot is not altogether a happy one. Yet we find much written that would seem very repulsive to any but the least squeamish "lay" mind. It is, in fact, a "running commentary", compiled from a diary, on pre-war medical studies and the life of a general practitioner. It contains much fatherly advice to the would-be medico on various subjects, such as how to pass examinations, to choose a practice or treat his patients, socially and medically.

When one has painfully acquired an immunity to the many grammatical and literary errors, the irritating, critical superiority of the ill-considered judgments on everything from Religion to Politics, the frequent monotonous "Well do I remember", the book becomes interesting in its way. It deals with the author's experiences and opinions as medical student, *locum tenens*, ship's doctor and general practitioner. The anecdotes are generally less entertaining than those in the stock of the average student and the "adventures" are singularly prosaic.

A large part of the book is devoted to a medical school life, a part to the work of the doctor, and the remainder to personal opinions on such well-worn themes as etiquette, quackery, homœopathy (of which a full, interesting and highly arithmetical account is given), maternal mortality, a State medical service, the future of medicine and "the Destiny of Man".

The book might be useful as a gift, perhaps, to a freshman who has no idea at all of what lies before him.

HYGIENE FOR NURSES. By JOHN GUY, M.D., D.P.H.(Camb.), F.R.F.P.&S.(Glas.), F.R.C.P.(Edin.), and G. S. I. LINKLATER, O.B.E., M.D., D.P.H., D.T.M.&H., M.R.C.P.(Edin.). Second edition. (Edinburgh: E. & S. Livingstone, 1933.) Pp. xi + 210. Figs. 22. Price 5s. net.

This small handbook summarizes the knowledge of hygiene covered by the syllabus of the General Nursing Council. It stresses principally the health of the individual as opposed to the community. The table of contents would give the best idea of the scope of the work. Part I:—Personal hygiene: food and metabolism; vegetable and animal foods; internal and external parasites; communicable diseases. Part II:—The house: ventilation, heating, lighting, water, sewage disposal; the nurse in relation to public health. There are some valuable tables and appendices. The figures are clear and instructive.

The interesting manner in which the subject is treated and the information so well imparted serve to make the book a most useful one.

ELEMENTARY HANDBOOK ON RADIUM AND ITS CLINICAL USE. By D. F. CLEPHAN and H. M. HILL. (Oxford University Press, 1933.) Pp. 164. Figs. 16. Price 7s. 6d. net.

There has been present for some time a need for a convenient book that would explain the essentials of radium treatment. This handbook adequately meets this need. Everything that is necessary for the student to understand the reactions and precautions in radium therapy is clearly set forth.

After a history of the subject the preparation and physical properties of the radio-active elements are given. Then follow practical chapters on the use and care of radium, the types of containers, methods of application and principles of treatment. The authors summarize the present opinion of radium therapy in the various sites, including, we notice, synopses of the work of Sir Charles Gordon-Watson on the rectum and Mr. Geoffrey Keynes on the breast.

A comparison of the methods used in the treatment of cancer of the uterus at Stockholm, Paris and Munich is gone into very fully, with tables of their results. The book closes with a review of the present position of radium in the treatment of malignant disease.

The illustrations are excellent, and the production up to the publisher's usual high standard.

The author's original mark—to supply a handbook for nurses and technical assistants—has been overshot purposely, and the book is now "elementary" only from an expert point of view. It can be recommended to every medical student as being the best and most convenient source of information on a subject that is becoming increasingly important.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

BOURNE, GEOFFREY, M.D., F.R.C.P. "Paroxysmal Auricular Flutter." *Lancet*, April 1st, 1933.

BROWN, W. LANGDON, M.A., M.D., F.R.C.P. "Diseases of Adrenal Glands." *The Medical Annual*, 1933.

——— "Insulin and Non-diabetic States." *The Medical Annual*, 1933.

——— "Obesity." *The Medical Annual*, 1933.

——— "Ovarian Hormones." *The Medical Annual*, 1933.

——— "Disorders of Parathyroid Glands." *The Medical Annual*, 1933.

——— "Disorders of Pituitary Body." *The Medical Annual*, 1933.

——— "Testicular Hormone." *The Medical Annual*, 1933.

——— "Diseases of Thyroid Gland." *The Medical Annual*, 1933.

COCKAYNE, E. A., D.M., F.R.C.P. *Inherited Abnormalities of the Skin and its Appendages*. London: Oxford University Press, 1933.

DAVIES, IVOR J., M.D., F.R.C.P. "British Pharmacopœia, 1932." *The Medical Annual*, 1933.

——— "Pharmacology and Therapeutics." *The Medical Annual*, 1933.

DONALDSON, MALCOLM, M.B., F.R.C.S. "Antenatal Problems in General Practice." *Clinical Journal*, February, 1933.

DUNDAS GRANT, Sir JAMES, K.B.E., M.D., F.R.C.S. "Forcible Nasal Inspiration." *British Medical Journal*, February 4th, 1933.

FISHER, A. G. TIMBRELL, *M.C.*, F.R.C.S. *Internal Derangements of the Knee-joint*. 2nd edition. London: H. K. Lewis & Co., Ltd., 1933.

GAUVAIN, Sir HENRY J., M.D., *M.C.* "Open-air Country Hospitals for Children." *Lancet*, February 11th, 1933.

GILLIES, Sir HAROLD, C.B.E., F.R.C.S. "Design of Direct Pedicle Flaps." *British Medical Journal*, December 3rd, 1932.

——— and KILNER, T. POMFRET, F.R.C.S. "Hare-lip Operations for the Correction of Secondary Deformities." *Lancet*, December 24th, 1932.

GORDON, M. H., D.M., F.R.S. "Remarks on Hodgkin's Disease: A Pathogenic Agent in the Glands and its Application in Diagnosis." *British Medical Journal*, April 15th, 1933.

GORDON-WATSON, Sir CHARLES, K.B.E., C.M.G., F.R.C.S. "The Early Diagnosis of Malignant Disease of the Rectum." *Practitioner*, February, 1933.

GROVES, ERNEST W. HEY, M.S., M.D., B.Sc., F.R.C.S. "A Surgical Adventure: An Autobiographical Sketch." *Bristol Medico-Chirurgical Journal*, Spring, 1933.

——— "Diagnosis and Treatment of Bone Tumours." *The Medical Annual*, 1933.

——— "Fractures." *The Medical Annual*, 1933.

——— "Surgery of Joints." *The Medical Annual*, 1933.

——— "Osteomyelitis." *The Medical Annual*, 1933.

——— "Spinal Disease and Deformity." *The Medical Annual*, 1933.

——— "Talipes." *The Medical Annual*, 1933.

HADFIELD, C. F., M.B.E., M.D. "Modern Aids to Anæsthesia." *British Journal of Anæsthesia*, January, 1933.

——— "The Choice of an Anæsthetic from the Point of View of the Anæsthetist." *Medical Press and Circular*, April 5th, 1933.

HUBBLE, DOUGLAS, M.B. *See* LESCHER and HUBBLE.

JAMESON, G. D., M.R.C.S., D.P.H., R.A.M.C. "An Experiment to Exterminate Bugs from Infected Buildings." *Journal Royal Army Medical Corps*, February, 1933.

KEYNES, GEOFFREY, M.D., F.R.C.S. "The Early Diagnosis of Malignant Disease of the Breast." *Practitioner*, February, 1933.

KILNER, T. POMFRET, F.R.C.S. *See* Gillies and Kilner.

LESCHER, F. GRAHAM, *M.C.*, M.A., M.D., and HUBBLE, DOUGLAS, M.B. "Idiopathic Aplastic Anæmia." *Lancet*, February 4th, 1933.

LINDEMAN, S. J. L., *M.C.*, R.A.M.C. "Two Cases of Tropical Typhus and Other Fevers." *Journal Royal Army Medical Corps*, February, 1933.

LLOYD, ERIC I., M.B., F.R.C.S. "Clicking Knee in Childhood." *Lancet*, March 11th, 1933.

MAXWELL, JAMES, M.D., M.R.C.P. "Further Reports on the Tuberculin Treatment of Anthrax." *British Medical Journal*, December 31st, 1932.

OSMOND, T. E., M.B. "Serum Reactions in Early Syphilis." *British Medical Journal*, February 11th, 1933.

PARSONS, F. B., M.A., M.D. "Some Recent Developments in Anæsthesia." *Practitioner*, April, 1933.

PAYNE, REGINALD T., M.B., F.R.C.S. "Recurrent Pyogenic Parotitis." *Lancet*, February 18th, 1933.

POWER, Sir D'ARCY, K.B.E., F.R.C.S. *A Short History of Surgery*. London: John Bale, Sons & Danielsson, 1933.

ROCHE, ALEX. E., M.A., M.D., M.Ch., F.R.C.S. "The Early Diagnosis of Malignant Disease of the Bladder." *Practitioner*, February, 1933.

——— "Urethral Catheters and Catheterization." *Clinical Journal*, February, 1933.

——— "Atrophy of the Testicle." *Clinical Journal*, April, 1933.

ROLLESTON, Sir HUMPHRY, Bart., G.C.V.O., K.C.B., M.D., F.R.C.P. "Changes in the Character of Disease." *British Medical Journal*, March 25th, 1933.

ROXBURGH, A. C., M.D., F.R.C.P. "Acute Disseminated Lupus Erythematosus: Five Fatal Cases." *British Journal of Dermatology and Syphilis*, March, 1933.

SHARP, B. BUCKLEY, M.D., M.R.C.P. *Neurological Effects of Syphilis: Diagnosis and Treatment*. London: Oxford University Press, 1933.

SHAW, WILFRED, M.D., F.R.C.S., F.C.O.G. "The Pathology of Ovarian Tumours." *Journal of Obstetrics and Gynæcology British Empire*, April, 1933.

SHORE, T. H. G., M.D., F.R.C.P. "Isolated Dextrocardia." *British Medical Journal*, February 11th, 1933.

STALLARD, H. B., M.B., F.R.C.S. "Injuries of the Eye." *Practitioner*, March, 1933.

THEOBALD, G. W., M.D., M.R.C.P., F.R.C.S.(Edin.). "Relationship of Albuminuria of Pregnancy to Chronic Nephritis." *Lancet*, March 25th, 1933.

WALKER, KENNETH M., O.B.E., F.R.C.S. "Periurethral Operations on the Prostate." *British Medical Journal*, March 4th, 1933.

WARING, Sir HOLBURT, M.S., F.R.C.S. "The Early Diagnosis of Malignant Disease." *Practitioner*, February, 1933.
WATKYN-THOMAS, F. W., B.Ch., F.R.C.S. "Malignant Disease of Air-Passages, Upper, and Post-Cricoid Region." *The Medical Annual*, 1933.
——— "Affections of Ear." *The Medical Annual*, 1933.
——— "Diseases of Larynx." *The Medical Annual*, 1933.
——— "Affections of Nose and Nasal Sinuses." *The Medical Annual*, 1933.
——— "Diseases of Œsophagus." *The Medical Annual*, 1933.
——— "Pseudo-membranous Pneumococcal Pharyngitis." *The Medical Annual*, 1933.
——— "Diseases of Tonsils." *The Medical Annual*, 1933.
WEBER, F. PARKES, M.D., F.R.C.P. "A Case of Erythræmia with Jaundice, Hepatic Cirrhosis and Hæmatemesis." *Lancet*, April 15th, 1933.
WOOD, W. BURTON, M.A., M.D., M.R.C.P. "Phthisis in Adolescence and Early Adult Life." *British Medical Journal*, March 25th, 1933.

EXAMINATIONS, ETC.

University of Oxford.

The following Degree has been conferred:

B.M.—Edelsten, G. G. M.

University of Cambridge.

The following Degrees have been conferred:

M.D.—Armstrong, J. R., Pearce, R.
M.B., B.Chir.—Franklin, A. W., Price, L. R. W.
M.B.—Graetz, G. H. A.
B.Chir.—Birdsall, S. E., Dahne, S. F. L.

Royal Colleges of Physicians and Surgeons.

The following Diploma has been conferred:

D.O.M.S.—Evans, L. P. J.

Conjoint Examination Board.

Pre-Medical Examination, April, 1933.

Chemistry.—Brown, E. E., Clunies-Ross, W. G. F., Hall, W. S., Knowles, H., Taylor, L. R., Webber, R. H.
Physics.—Hall, W. S., Rushby, F. W., Stewart, E. F. G., Storey, T. P., Webber, R. H.
Biology.—Billimoria, B. R., Grant, D. S., Huddlestone, C., Kumar, A. M., Redman, V. L., Rushby, F. W., Schenker, A. W., Taylor, L. R., Webber, R. H.

First Examination, April, 1933.

Anatomy.—Alexander, L. L., Clarke, S. H. C., Gomez, A., Gray, G., Heasman, L., Maidlow, W. M., Mills, P. J. W., Ottley, M. F. B., Rosten, B. M. D., Salmon, J. K., Weiner, H., Weston, C.
Physiology.—Anderson, J. D., Clarke, S. H. C., Gomez, A., Gray, G., Heasman, L., Hughes, T. E., Mills, P. J. W., Rosten, B. M. D., Salmon, J. K., Weiner, H.
Pharmacology.—Barbour, A. B., Curtiss, L. M., Force-Jones, R. J., Kelnar, I., Knight, W. C., Mankin, E. M., Merriman, B. M., Nel, J. G., Paget, W. O. G., Palmer, T. I., Sansom, H. V., Tooth, G. C.

The following Students have completed the Examinations for the Diplomas of **M.R.C.S., L.R.C.P.:**

Ashton, D. R., Barasi, G., Berry, W. T. C., Briggs, G. O. A., Brownlees, T. J. K., Carpenter, R. H., Cohen, E. L., Cuthbert, T. M., Darmady, E. M., Dipple, P. E., Ghey, P. H. R., Higginson, H. C. H., Hole, E. K., John, C. W., Jones, N. H., Langenberg, E. R., Lee, H. B., Macfarlane, R. G., Mansi, R. L., Morel, M. P., Orpwood, R. M. M. C., Simcox, R. T., Stephens, D., Thomas, B. A., Trubshaw, W. H. D., Ware, C. E. M., Weddell, A. G. M., Williams, R. H. H., Wilson, J., Woodforde, A. R., Woodham, C. W. B.

CHANGES OF ADDRESS.

ANDERSON, R. G., 86, Harley Street, W. 1. (Tel. Langham 1742.)
GRAETZ, G. H. A., 32, Beaumont Park Road, Huddersfield, Yorkshire.
GREEN, L. E., 22, Romsey Road, Eastleigh, Hants.
HARRIS, A. G. JEAFFRESON, Hill House, Sherborne, Dorset.
HOLDSWORTH, W., Mayfield, Trentham Road, Longton, Stoke-on-Trent.
JENKINSON, Surg.-Lieut. S., R.N., H.M.S. "Alecto", 5th Submarine Flotilla, c/o General Post Office, E.C. 1.
KENDALL, N. F., Honeyway, Highclere, Newbury, Berkshire.
NICHOLSON, J. C., 17, North Road, Highgate Village, N. 6. (Tel. Mountview 5967.)
RAWLING, L. BATHE, Lavender Corner, Littlestone-on-Sea, Kent. (Tel. Littlestone 45.)
ROBINSON, V. P., The Cottage, Diss, Norfolk.
SMITH, W., 44, Beaconsfield Road, Westcombe Park, S.E. 3.
VINTER, N. S. B., 57, Soundwell Road, Kingswood, Bristol. (Tel. Kingswood 73630.)

APPOINTMENT.

ROBINSON, V. P., B.M., B.Ch.(Oxon.), appointed Certifying Factory Surgeon for Diss District.

BIRTH.

BARNES.—On May 11, 1933, at 8, Holywell, Oxford, to Florence and David Barnes—a daughter.

MARRIAGES.

HOBDAY-RADFORD.—On April 22nd, 1933, at St. James's Church, Chilton Cantelo, Yeovil, by the Rev. O. P. Fisher, assisted by the Rev. C. I. Radford, uncles of the bride, Dr. F. T. J. Hobday, only son of Sir Frederick Hobday, C.M.G., F.R.C.V.S., F.R.S.E., and Lady Hobday, of 31, Argyll Road, W. 8, to Sczerina Nèomi, only daughter of Mr. Daniel Radford and the late Mrs. Radford, of Kojonup, Western Australia.
KNOX—EAST.—On April 27th, 1933, at St. Bartholomew the Great, Dr. John Stuart Knox, eldest surviving son of Lieut.-Col. Sir Hamish and Mrs. Knox, to Joan Norwood East, only child of Dr. and Mrs. East.
PARSONS—ATTFIELD.—On April 27th, 1933, at All Souls', Langham Place, London, W., Christopher T. E. Parsons, M.R.C.S., L.R.C.P., of Mildenhall, Suffolk, younger son of Ernest Parsons, 49, Queen Anne Street, W., to Pauline, elder daughter of Mr. and Mrs. Arthur J. Attfield, of Mildenhall, Suffolk.
WILLIAMS—LAUDER.—On April 29th, 1933, at St. Mary's Church, Lydney, Ralph Norman Haile Williams, eldest son of Mr. and Mrs. R. Williams, of Lydney, Gloucestershire, to Mary, third daughter of Mr. and Mrs. James Lauder, of Old Park, Lydney. Future address: Hazelwood, Nailsworth, Gloucestershire.

DEATHS.

COOK.—On May 11th, 1933, of septicæmia, at Kaduna, Norman E. Cook, of C.M.S. Hospital, Zaria, N. Nigeria, husband of Clarice Cook, and second son of Dr. and Mrs. J. Howard Cook, of West Hampstead.
GIBBINS.—On May 10th, 1933, at Kemsing, Kent, Herbert Bowly, third son of the late Frederick Joseph Gibbins, of Neath, aged 59.
LITTLE.—On May 14th, 1933, at Monte Carlo, Col. Stephen Little, late I.M.S., aged 77.
LLOYD.—On April 24th, 1933, after an operation, Rickard William Lloyd, M.R.C.S.(Eng.), L.R.C.P.(Edin.), of 103, Oakwood Court, W. 14, son of the late Major Edward Lloyd, late 6th (Royal Warwickshire) Regiment, and grandson of the late Sir Robert Stanford, aged 74.
SHEEHY.—On April 27th, 1933, at a London nursing home, after a long illness, William Henry Patmore Sheehy, M.R.C.S., L.R.C.P., Governor of St. Bartholomew's and Christ's Hospitals, late of Montebello, Totteridge.

NOTICE.

All Communications, Articles, Letters, Notices, or Books for review should be forwarded, accompanied by the name of the sender, to the Editor, ST. BARTHOLOMEW'S HOSPITAL JOURNAL, *St. Bartholomew's Hospital, E.C. 1.*

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